

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 1 and 5 have been amended. Claims 10-21 have been withdrawn. Claims 1, 2 and 4-9 are pending and under consideration.

CLAIM REJECTIONS – 112

Claims 1, 2 and 4-9 were rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Office Action noted that the Examiner did not feel that claim 1 was enabled because means do not exist to pump the water from the rotary tub because the water is pumped from the water tub.

Claim 1 has been amended to recite operations regarding a drain pump and a water tub. Support for these amendments to claim 1 may be found in at least Figures 1 and 3, and in paragraphs [0033] and [0041] of the specification. In its present form, it is respectfully submitted that claim 1 complies with the enablement requirement.

Withdrawal of the foregoing rejections is requested.

CLAIM REJECTIONS – 103

Claims 1, 2 and 4-9 were rejected under 35 USC 103(a) as being unpatentable over Orszulik (WO 01/59196) hereinafter "Orszulik") in view of Oh et al. (US 6,116,061) (hereinafter "Oh") and Ruhl et al. (US 2003/0056300) (hereinafter "Ruhl").

Claims 1, 2 and 4-9

Amended claim 1 recites: "...draining water that has passed through the laundry from the rotary tub into a water tub simultaneously with the water being sprayed and fed into the rotary tub; and draining water in the water tub to outside of the water tub by operating the drain pump until the inertial rotation of the rotary tub terminates." Support for these amendments to claim 1 may be found in at least Figures 1 and 3, and in paragraphs [0033] and [0041] of the specification.

The Office Action relies on Orszulik to show these features of claim 1. In the Office Action, in the "Response to Arguments" section, the Examiner notes that Orszulik discusses pumping water out of the sump 26 to drain the machine. The Examiner further notes that one skilled in the art would see the benefit of saving time by draining the rinse water as soon as possible so as to proceed to the next washing step.

Claim 1 recites a process including spraying and feeding water into the rotary tub during a time period when the rotary tub is inertially rotating and at the same time draining the fed water shortly after passing through the laundry to outside of the rotary tub by operating the drain pump.

However, Orszulik discusses spraying rinse water into the interior of the drum while rotating the drum at a first rotational speed and then rotating the drum at a second rotational speed higher than the first rotational speed to spin-dry/drain a significant proportion of the rinse water out of the wash load.

In contrast to Orszulik, claim 1 does not rely on "a second rotational speed" like Orszulik. Moreover, a certain amount of the sprayed and fed water is not stored in the laundry or rotary tub and spin-drying/draining operation does not occur in succession spraying/feeding operation because the fed water is drained shortly after passing through the laundry to outside of the rotary tub in amended claim 1.

Specifically, in the invention of claim 1, the sprayed and fed water removes the remaining contaminant and detergent from the laundry by rinsing the laundry while passing through the laundry and the sprayed and fed water is drained shortly after passing through the laundry to outside of the rotary tub, thus improving rinsing performance. However, Orszulik does not have the technical effect like the invention of claim 1.

Further, it is respectfully submitted that the Examiner is improperly modifying Orszulik in order to arrive at the technical feature of claim 1 of pumping or draining water in the water tub to outside of the water tub until the inertial rotation of the rotary tub terminates.

Orszulik discloses on page 11 when pumping occurs. In Orszulik, pumping occurs during the final spin step 112 during which the water collected in the sump 26 is pumped to the water outlet. Orszulik goes on to discuss several variations. But none of the variations discussed in Orszulik include draining water in the water tub to outside of the water tub during the inertial rotation of the rotary tub.

Accordingly, it is respectfully submitted that the Office Action's modification of Orszulik is improper. More specifically, MPEP 2143.01(IV) clearly notes that a statement that modifications of the prior art to meet the claimed invention would have been well within the ordinary skill of the art at the time the claimed invention was made because aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness.

Accordingly, if the rejection of claim 1 is maintained, a reference discussing the technical feature of claim 1 of draining water in the water tub to outside of the water tub until the inertial rotation of the rotary tub terminates is respectfully requested.

Further, this deficiency in Orszulik is not cured by either Oh or Ruhl.

This technical feature of claim 1 enables laundry to be uniformly soaked with the water within a short time and improves rinsing performance while further increasing overall efficiency of the washing machine.

For exemplary purposes, the Examiner is respectfully directed to paragraph [0033] of the specification of the present application which discusses that the motor 20 rotates the rotary tub 11 at a high rotation speed to remove waste water from the laundry. The rotation speed of the motor 20 is lower than a speed at the time of a final spin-drying for a certain period, thus performing an intermittent spin-drying operation in operation 103. In this case, the auxiliary water feed valve 15 is opened to directly spray and feed clean water into the rotary tub 11 while the rotary tub 11 is rotated by rotational inertia just before the intermittent spin-drying operation terminates. Therefore, while the sprayed clean water passes through an outer part of the laundry from a center part of the laundry, waste remaining on the laundry is removed from the laundry. Consequently, the entire laundry is rinsed clean while being uniformly soaked with the clean water within a short time.

These technical advantages, which are realized by the method of claim 1, provide a method of controlling a drum washing machine, which allows laundry to be uniformly soaked with water within a short time, and to be rinsed while fed water passes through the laundry, thus improving rinsing performance.

Claims 2 and 4-9 depend on claim 1 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Gregory W. Harper
Gregory W. Harper
Registration No. 55,248

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501